



**PATENT**  
**Attorney Docket No.: SP00-194**

173

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: George Beal et al

Serial No: 09/691,427

Group Art Unit: 1731

Filed: October 18, 2000

Examiner:

For: **METHOD FOR MAKING  
NANOCRYSTALLINE GLASS-  
CERAMIC FIBERS**

## RESPONSE RESTRICTION REQUIREMENT

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

In the Office Action mailed October 21, 2002, designated as Paper No. 4 in the above-captioned application, the Examiner issued a Restriction Requirement identifying the following groups of claims as being drawn to potentially distinct inventions:

Group I. Claims 1-17, drawn to a method of making a glass ceramic fiber, classified in class 65, subclass 41; and

Group II. Claims 18-21, drawn to a glass fiber, classified in class 385, subclass 123.

The Examiner asserted that these inventions might be regarded as independent and distinct from one another because they are related as process of making and product made, and that a restriction requirement is proper under MPEP 806.059f). In particular, the Examiner states: "In the instant case the process as claimed can be used to make another product- such as one in where the migration of component element are not minimized." The undersigned attorney of record hereby elects, without traverse, the Group I claims 1-17. Applicants reserve the right to file a divisional application upon the non-elected claims 18-21 at any time as may be allowed under the Patent Laws.

The Examiner further stated that claims 1, 12 and 13 are generic to a plurality of disclosed patentable distinct species comprising various active ions, and has required applicant to elect a single species for examination. Applicants traverse this restriction requirement.

Applicants believe that the election requirement is unclear with regard to claim 1. Applicants request clarification. However, in order to expedite prosecution, applicants interpret the election requirement as one by which they must elect to prosecute either the transition elements set forth in claim 3 or the lanthanide elements set forth in claims 5. If this interpretation is correct, applicants elect, with the traverse given below, the transition elements of claims 3. If this interpretation is incorrect, applicants' attorney requests that the Examiner call him at the number given below so that the requirement can be clarified.

Applicants traverse the election requirement with regard to claim 1 on the grounds that claim 1 describes a method for preparing a glass ceramic optoelectronic material containing an optical active ion; and in particular a glass ceramic material wherein nanocrystals are developed in a portion thereof containing the optically active ion. However, if the Examiner believes that the claim also encompasses ions other than those of the transition and lanthanide series claims 3 and 5, applicants would be willing to amend claim 1 to recite that the optical active ion "is selected from the group consisting of transition element ions and lanthanide element ions" by incorporating claim 2 into claim 1. Claims 3 and 5 would remain in the application and contain further limitations on the scope of claim 1.

Applicants also traverse the restriction requirement with regard to transition elements and lanthanide elements on the basis of the similar properties possessed by both. While individual transition and lanthanide elements are different as witnessed by their atomic number, such metals have certain properties that render them similar. For example:

1. They are all hard, strong, high-melting, high-boiling metals that conduct heat and electricity well.
2. Because of their partially filled *d* and *f* shells, they form at least some paramagnetic compounds.
3. With very few exceptions, they exhibit variable valence, and their ions and compounds are colored in one if not all oxidation states.
4. In both instances, the electrons in the *d* and *f* orbitals of the transition elements and the lanthanide elements are influenced by their environment and in turn influence their environment. While these effects are more pronounced in the case transition elements because their *d* orbitals project well out to the periphery of the atoms and ions, the effects occur in the lanthanides. These properties are particularly useful in optoelectronic applications. (See the specification, page 7, line 25, to page 8, line 5.)

Consequently, applicants respectfully submit that due to the similarities between the transition elements and the lanthanide elements, restriction of the claims to either transition elements or lanthanide elements may be withdrawn.

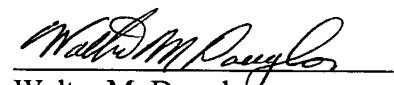
In addition, within the group of transition elements and the group of lanthanide elements, the individual elements will exhibit the above enumerated similarities in their properties. Consequently, applicants submit that the Markush claims 3 and 5 are proper, and further restriction to the individual elements of each of claim 3 and 5 is not warranted.

No change in inventorship is necessary due to the election of claims 1-17 for further prosecution.

Applicants believe that no extension of time is necessary to make this Response timely. Should Applicants be in error, Applicants respectfully request the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Response timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

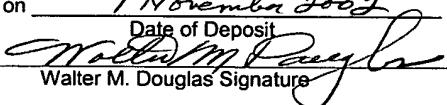
Please direct any questions or comments to Walter M. Douglas at (607) 974-2431.

Respectfully submitted,

  
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Date: 1 November 2002

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Commissioner of Patents and Trademarks, Washington, DC 20231 on 1 November 2002

Date of Deposit

  
Walter M. Douglas Signature